

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Canceled)
2. (Canceled)
3. (Canceled)
4. (Currently Amended) The method as set forth in ~~claim 1~~ claim 9, further comprising the step of:
converting the received original image into a bitmap image before the color converting step is carried out.
5. (Currently Amended) The method as set forth in ~~claim 2~~ claim 9, wherein the color converting step comprises the step of:
deciding a conversion color according to priorities in order of the primary, secondary and white colors if two or more of the first, second and third color difference values correspond to the smallest color difference value as a result of the comparison.
- 6 (Currently Amended) The method as set forth in ~~claim 2~~ claim 9, wherein the weight value for the primary color is set to be large if a ratio of the primary color is desired to be increased in the two-color image, and wherein the weight value for the secondary color is set to be large if a ratio of the secondary color is desired to be increased in the two-color image.
7. (Currently Amended) The method as set forth in ~~claim 3~~ claim 10, wherein the color converting step comprises the step of:

deciding a conversion color according to priorities in order of the primary, secondary and white colors if two or more of the first, second and third color difference values correspond to the smallest color difference value as a result of the comparison.

8. (Currently Amended) The method as set forth in ~~claim 3~~ claim 10, wherein the weight value for the primary color is set to be large if a ratio of the primary color is desired to be increased in the two-color image, and wherein the weight value for the secondary color is set to be large if a ratio of the secondary color is desired to be increased in the two-color image.

9. (New) A method for processing an image in a printer capable of printing a two-color image, comprises the steps of:

setting a primary color and a secondary color as printable colors in the printer;

receiving an original image; and

converting the original image into the primary, secondary, or white color associated with a smallest color difference value on a pixel-by-pixel basis,

calculating a first color difference value $\Delta Co/1$ between the corresponding pixel color of the original image and the primary color according to the equation $\Delta Co/1 = |R_0 - R_1| + |G_0 - G_1| + |B_0 - B_1| - Vcb$,

calculating a second color difference value $\Delta Co/2$ between the corresponding pixel color of the original image and the secondary color according to the equation $\Delta Co/2 = |R_2 - R_0| + |G_2 - G_0| + |B_2 - B_1| - Vcs$,

calculating a third color difference value $\Delta Co/3$ between the corresponding pixel color of the original image and the white color according to the equation $\Delta Co/3 = |255 - R_0| + |255 - G_0| + |255 - B_0|$, and

converting the corresponding pixel color into a conversion color associated with the smallest color difference value of the calculated color difference values $\Delta Co/1$, $\Delta Co/2$ and $\Delta Co/3$,

wherein R_0 , G_0 and B_0 are RGB values of the corresponding pixel color of the original image, R_1 , G_1 and B_1 are RGB values of the primary color, R_2 , G_2 and B_2 are RGB values of the secondary color, values of 255 are RGB values of the white color, V_{cb} is a weight value for the primary color, V_{cs} is a weight value for the secondary color, and the weight values V_{cb} and V_{cs} are arbitrarily set.

10. (New) The method as set forth in claim 9, wherein the color converting step comprises the steps of setting an arbitrary color to a boundary color R_{th} , G_{th} and B_{th} ; and

calculating the first color difference value ΔCol_1 according to the equation $\Delta Col_1 = |R_0 - R_1| + |G_0 - G_1| + |B_0 - B_1| - V_{cb}$,

calculating the second color difference value ΔCol_2 according to the equation $\Delta Col_2 = |R_{th} - R_0| + |G_{th} - G_0| + |B_{th} - B_0| - V_{cs}$, and

calculating the third color difference value ΔCol_3 according to the equation $\Delta Col_3 = |255 - R_0| + |255 - G_0| + |255 - B_0|$.

11. (New) The method as set forth in claim 10, further comprising the step of:

converting the received original image into a bitmap image before the color converting step is carried out.